## **ABSTRACT**

Human antibody fragments (Fab 14.6.19 and Fab 14.6.20) including polynucleotides and amino acids (SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5 and SEQ ID NO: 6) that identify them. Both Fabs are fully human, are affinity matured in vivo, are highly specific for breast cancer, and target an antigen that is immumogenic in vivo. Thus, each Fab may be a useful clinical reagent for diagnosis or therapy of breast cancer and may also lead to the discovery of a novel immunogenic and tumor specific breast cancer antigen.

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